

FATAL AIR EMBOLISM AFTER PUNCTURE MAXILLARY ANTRUM—AUTOPSY

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X-ray of the maxillary antrum, followed by lavage through a straight trocar of two millimeters, outside diameter, placed through the inferior meatal wall, has for several years been our routine in the examination of suspected chronic sinusitis cases. We have done this several thousand times in the past six years, 1191 times in the past two and a half years. We have very seldom blown air through the trocar before liquid, but we have not absolutely forbidden it. We have considered this an easy and safe procedure, and one of the first things to allow our internes to actually do after they have completed the technique of examinations.

A case of sudden death, shown by autopsy to have been caused by air embolism, has caused us to modify our technique somewhat.

Case Report—Male, age 40. Catarrh and impairment of nasal breathing for years; acute rhinitis five or six times a year; much anterior nasal discharge; tonsillitis once a year; hearing impaired in both ears, four years; much tinnitus; no pain or discharge in ears. Examination showed the nasal septum irregular on the right, turbinates enlarged, much mucopurulent discharge, space poor; left naris about the same; tonsils moderate size, wide crypts, purulent debris in crypts; nasopharynx clear; vocal cords and arytenoids, normal motility and appearance; both membranae tympani retracted, fibrous, fair light reflexes; watch heard in right ear 12/36, in left 18/36. X-ray showed thickened lining membrane both maxillary antra. Straight trocar placed through right inferior meatal wall into antrum by interne. Air forced through trocar. Collapse.

The patient was stiffened out in the examination chair when I reached him. The trocar had been withdrawn. My first thought was epilepsy; but when he was at once laid out on the floor, we noted that, though his lower limbs were spastic, the upper ones, neck and jaws, were relaxed, pupils dilated, pulse not perceptible. Carried across the room to treatment table. Adrenalin, caffeine sodium benzoate and strychnine sulphate hypodermically at intervals. Heart massaged for fifteen minutes. Artificial respiration for half an hour. No heart beat with stethoscope.

Autopsy—Autopsy by Dr. William Ophüls showed death to have been due to air embolism, the right ventricle and conus of pulmonary artery being filled with a foam of air and blood.

Sir St. Clair Thompson, at the meeting of the Section of Laryngology, Royal Society of Medicine, March 2, 1923, said he had been taught to blow air through the cannula, and he had never seen an accident from the procedure. He said that it would be important to settle whether air really was responsible.

Two cases have been reported where autopsy has shown death to have been due to air embolism, one by Bowen in 1913, and one by Neugebauer in 1917. Both of these cases are cited by Grove in 1922 in his detailed account of mishaps in puncture of the antrum.

We now force the trocar, without any rubber attachment, through the inferior meatal wall, apply

suction to the trocar with a glass syringe to be sure it is not in a vein, attach a piece of rubber tubing which has a metal modifier that fits the trocar tied to it, and force the liquid through with a metal syringe. No air should be blown through before the liquid. After using the fluid, a couple of syringefuls of air are used to partially clear the antrum of fluid.

This makes a safe procedure and we shall continue to use it in our work.

Responsibilities of the Press—The gullibility of man is limited only by the scope of his imagination, although it is in some measure modified by the degree of intelligence which he possesses. "In some measure" we say advisedly, for we know that in fields which lie outside his exact knowledge even the most intelligent of men will often hold reason in abeyance and believe that which he wishes to believe, or that which appeals to his fancy, his imagination, or that innate love of the mysterious which lies in all of us. Thus we have the examples of Bishop Berkeley exploiting his tar water, George Washington (so it is said) purchasing from Elisha Perkins a pair of metallic tractors for family use, and in our own more enlightened day countless numbers seeking health through the many irregular methods that we are all aware of.

As each extravagant claim and each unwarranted belief is promulgated, however, there is always that large number of reasoning individuals who, either through natural wisdom or exact knowledge, know that these claims and beliefs are unsubstantial and faulty. It is through these persons that the acceptance or rejection of unusual ideas should come, and it is by them that the minds of the people should be directed into the proper channels when occasions of doubt, or bewilderment, or spurious belief are likely to arise.

It is inconceivable to believe that our daily press should not have men of this caliber intimately concerned with the directing of its policies; it is also inconceivable to believe that our press, for the sake of presenting the spectacular to its readers, or for more baldly commercial reasons, should print as news or advertisement statements, in the guise of fact, which may be detrimental to the public interest. Inconceivable or otherwise, we must acknowledge that this is done.

Editorial policies and news and advertisements we find are conveniently separate, for the advertising pages of a newspaper which, editorially, professes great interest in the public welfare, will flaunt proprietary gland preparations before our eyes, and in the news section we will find considerable concern exercised lest Lord Carnarvon's insect bite might be the imperial punishment of a long dead Pharaoh, although, in another section of the same issue, we may read a denial of this possibility. "Let not thy right hand know what thy left hand doeth" might almost be adopted as a motto by many publications.

There is great power for harm in such statements and advertisements, and we have seen too much of this loose thinking and unscrupulous advertising lately. The newspaper is the most powerful instrument in the world for shaping public opinion, and its responsibilities are too great to be taken lightly. Quotations concerning the power of the pen are hackneyed, but it is very near the truth to say that high-minded and public-conscienced editorial staffs are more valuable than college faculties.—Editorial, Boston Medical and Surgical Journal, April 19, 1923.